# CREATING CONNECTIONS: Newtonville Town Center

2008 Internship Charrette • Newtonville, Massachusetts



# 2008 Intern Charrette: Newtonyille Massachusett

# **OUR THANKS TO**

### Massachusetts Bay Transportation Authority

Joseph Cosgrove, Director of Development/Planning
Margie Lackner, Deputy Director of Design
Ken Belovarac, Manager of Design—Track/Civil Design and Construction
Reta Butmi, Bridge/Structural Engineer

### City of Newton

Alexandra Anon
Candace Havens, Chief Planner
Mike Kruse, Director, Planning and Development
David Koses, Transportation Planning Coordinator
Eve Tapper, Economic Development Specialist

### Sasaki Charrette Coordinators

Caroline Braga
Bill Doyle
Jason Hellendrung

and the many others in the office who provided feedback, information, and technical support through this process

# THE INTERNS:

### **Architecture**

Chelsea Anderson, RPI, NY Joseph Kuhn, Roger Williams University, RI Ruifeng Tian, MIT, MA

### **Eco-Tech**

Lauren Klonsky, Tufts University, MA

### **Interiors**

Katie Kaiser, University of Minnesota, MN Corinne Rico, Cornell University, NY Kaitlin Schalow, University of Wisconsin, WI

### Landscape

Sheara Cohen, Harvard GSD, MA
Peter Emerson, Temple University, PA
Guohao Li, Germany
Cynthia Silvey, Harvard GSD, MA

### **Planning**

Sally Foster, University of Pennsylvania, PA Hope Stege, MIT, MA



Counterclockwise from top: Corinne Rico, Lauren Klonsky, Sheara Cohen, Hope Stege, Kaitlin Schalow, Chelsea Anderson, Cynthia Silvey, Peter Emerson, Joseph Kuhn, Ruifeng Tian, Sally Foster, Katie Kaiser.

# ssachusetts

# **CONTENTS**

### Page 5 Introduction

Task, Primary Issues, Process, Context and Site, History

### Page 27 Regional Analysis

Population and Demographics, Housing Market, Village Structure and Amenities

### Page 35 Site Analysis

Land Use, Open Spaces, Circulation, Existing Site and Observations, Community Meeting

Page 55 Project Principles

Guiding Principles, Project Goals

### Page 61 Design Proposals

Decking, Master Plan, Phasing, Regional

# Introduction

# 2008 Intern Charrette: Newtonville, Massachusetts

# THE TASK

### **Program Summary**

Interns will work with the City of Newton on a two-week idea-generating charrette looking at the village of Newtonville, which was separated into two pieces by construction of the Mass Turnpike in the 1960's. All of Newtonville will be studied, with particular emphasis placed on the area roughly between Walnut and Harvard Streets—adjacent to the Shaw's Supermarket which projects over the Pike.

### Approach, Week One

The thirteen participants of this two-week charrette program will be divided into three interdisciplinary teams. Teams will begin by addressing the whole site at a conceptual level. Through a process of analysis, teams will develop an understanding of the complexities of the site and its context, and will prepare a conceptual development plan for Newtonville. The teams will explore means of connection across the Mass Pike, outward towards surrounding neighborhoods, and to the larger region via the Pike and commuter rail, as well as address the key issues of transit, vehicular and pedestrian circulation, potential development opportunities, streetscape, connectivity to open spaces, wayfinding, etc. This study should incorporate sustainable approaches.

### Approach, Week Two

On Monday, the group will synthesize their work into one coherent Newtonville plan. Participants will then break down into smaller teams and select one aspect of the group conceptual Newtonville Plan from week one. Drawing upon their diverse talents and interests, teams will develop a design concept at a detailed scale, illustrating how one part of the Newtonville vision may be realized.

# THE PRIMARY ISSUES

### Providing connectivity between the neighborhoods on the north and south sides of the Pike.

The neighborhood on the south side ("Newtonville Square") feels like a walkable town center, while the neighborhood on the north side along Washington Street has a more vehicular feel. The two commercial areas see themselves as distinctly separate although they are part of the same ward. How or should these areas be linked back together?

### Potential for a transit hub or mixed-use transit-oriented development.

Parking supply in Newtonville is limited; however, the commuter rail passes through the center of the village, linking it to the greater Boston area. What would a new transit station or platform look like? What other program might be associated with the commuter rail stop? None of the commuter rail stops in Newton, including the stop in Newtonville, have ADA access. How can accessibility be included?

### Potential for mixed-use development with residential component.

Newtonville is one of four target neighborhoods that have been identified by the City of Newton as Community Development Block Grants (CDBG) Program recipients, a government grant program for lower income neighborhoods. Lower income residents are slowly being pushed out of Newton due to high housing costs in the Boston area.

Opportunity sites for all of the above include but are not limited to the city-owned parking lot adjacent to the Shaw's parking lot, the Shaw's supermarket itself, the air-space over the Pike, and the commuter rail stop.

# THE PROCESS

WEEK 1

Monday Introduction 6.2.08

Tuesday Site visit

6.3.08 Community meeting

Wednesday Site analysis 6.4.08

Thursday Continue site analysis 6.5.08 Concept development

Friday Concept development 6.6.08 Pin-up for Sasaki staff



Site visit to Newtonville - commuter rail



Group intern discussion and site analysis



Site visit to Newtonville - Massachusetts Turnpike

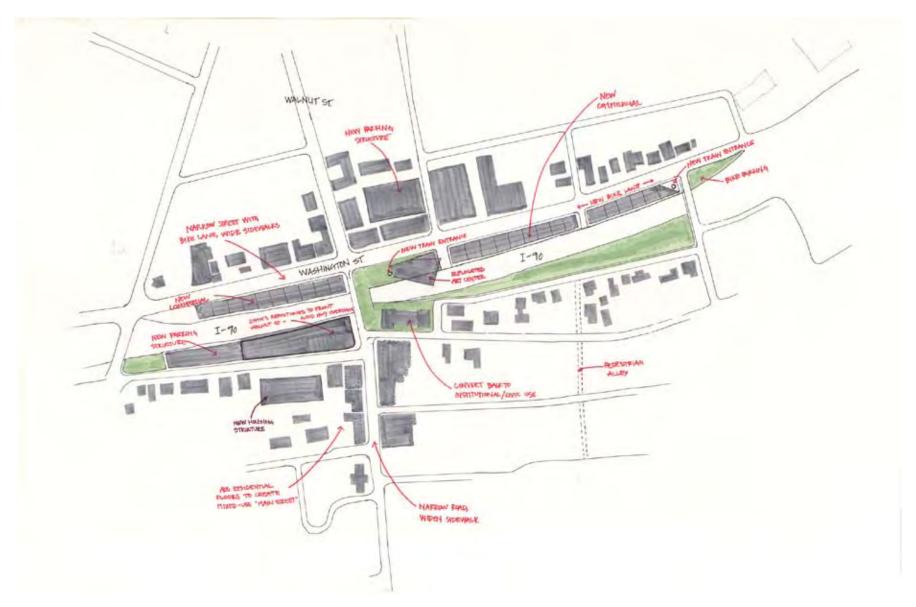
# **PROCESS**

### WEEK 1

As a part of week one, the interns divided into three groups to develop three different concepts for the Newtonville project. The concepts were: unity with minimum intervention to infrastructure, unity with maximum intervention, and a hybrid of the previous two concepts. The three groups developed master plans for each of their concepts to present at Friday's pin-up.

These three plans served as the basis for development in week two. The plans and feedback were analyzed and synthesized in order to decipher specific project goals and principles for the final master plan. Aspects from all plans were incorporated into the master plan to create one final functional solution to the Newtonville charrette.

# **ALTERNATIVE SCENARIOS**

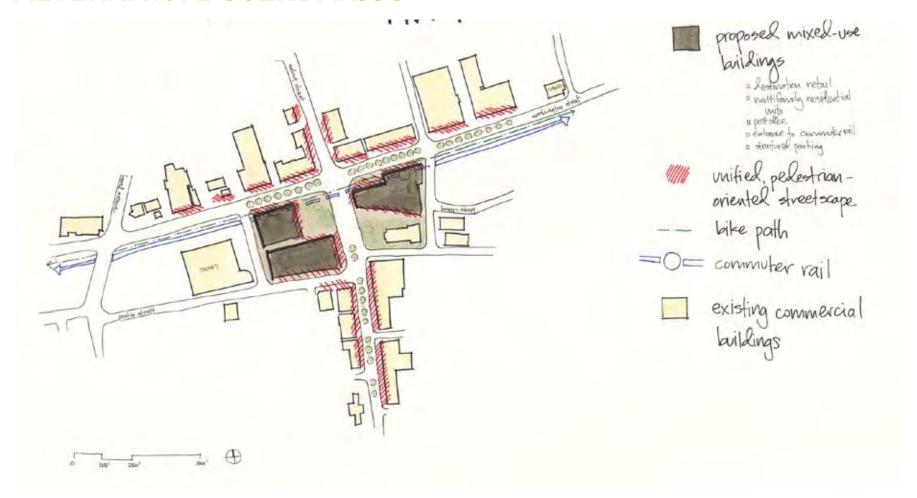


12

# **ALTERNATIVE SCENARIOS**



# **ALTERNATIVE SCENDARIOS**



13

# THE PROCESS

WEEK 2

Monday Synthesis of concepts 6.9.08 Draft master planning

Tuesday Design development 6.10.08

Wednesday Design development 6.11.08 Production

Thursday Production 6.12.08

Friday Final presentation 6.13.08

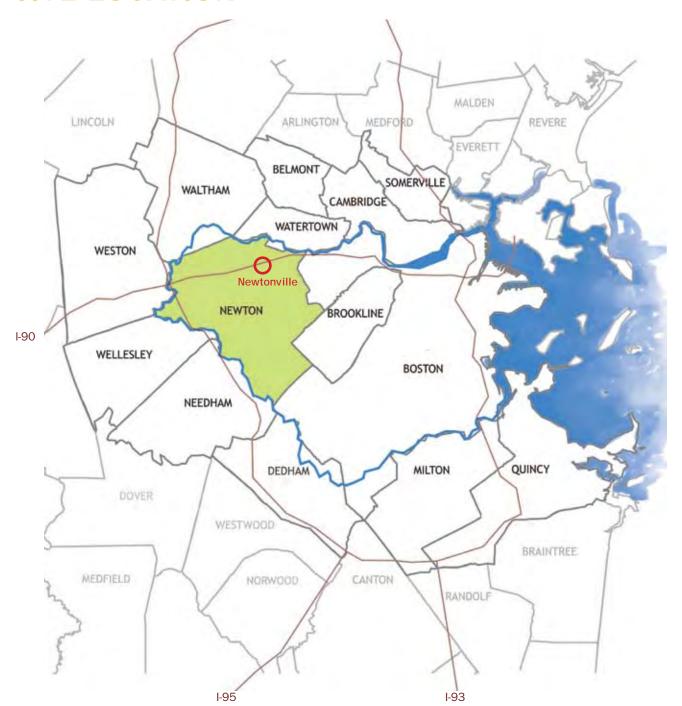


Small group design development and production



Small group design development and production

# SITE LOCATION



### The Boston Metropolitan Area

Newton is an inner-ring suburb of Boston. Due to its proximity to the city and easy transportation connections, it has long been a favorable location for development, in particular residential. The village of Newtonville is located along Interstate 90, the main highway passing through the north part of Newton.

# **NEWTON'S VILLAGE CENTERS**



### The City of Newton

The City of Newton is structured around 13 village centers, which are historic community centers. Newtonville is one of these town centers.

As seen on the site map on the following page, the study area centers on the intersection of Washington Street and Walnut Street where it crosses the Mass Turnpike. The core area includes access to the commuter rail station, convenience retail, some office spaces, and parking. As one moves away from the center, land use quickly shifts to lower-density residential development.

Two major rail lines run eastwest through Newton, connecting Newton as well as towns to its west with downtown Boston. The first is Framingham/Worcester commuter rail line, which stops in Newtonville. The second is the Green Line subway.

Interstate 90, the Mass Turnpike, follows the route of the commuter rail into Boston. Unlike the rail, however, there are no exits off this highway into Newtonville. Additionally, Interstate 95 borders Newton to its west, connecting it to areas north and south.

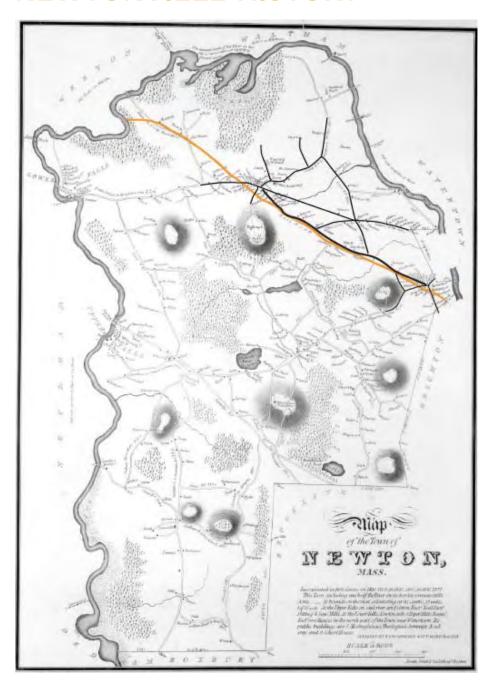
# THE SITE



Aerial View of the Newtonville design charrette project site.

# THE SITE





### 1830 - 1840s

The City of Newton, established in 1691, began as a series of nodes connected by railways as a means of transportation. At present, it is still a large network of auto routes. Newtonville is located in the north central section of the City of Newton. The present-day boundaries of Newtonville are defined by the Charles River to the north, the athletic fields of Newton North High School to the south, West Newton hill to the southwest, and other rolling hills to the southeast.

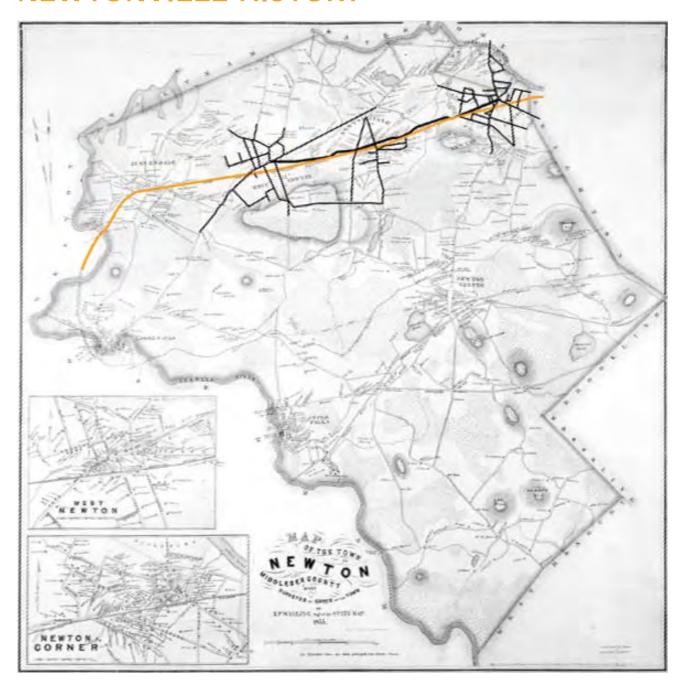
Newtonville was originally a small and sparse farming region of the City of Newton. The creation of the Boston and Worcester Railroad in 1831 led to the development of Newtonville as an urban node of Newton. By the late 1840s, the railroad provided regular passenger service between Newtonville and the city of Boston. Within a few years of the creation of the commuter service, the real estate market began to flourish, and prosperous businessmen began to build homes on large plots of land. Newtonville's central location and the rural setting also attracted less affluent families, leading to socioeconomic diversity of working, middle, and upper middle class residents.



Map of the City of Newton, 1848, showing rail (orange) and roads (black).

### 1845 - 1850s

Around 1845, the first railroad depot was constructed in the center of Newtonville. This and the surrounding area - the presentday intersection of Washington and Walnut Streets - were called "Hull's Crossing," named after General William Hull, a prosperous farmer who owned a building on Washington Street for farm product storage. Walnut Street during this era extended only from Washington Street southward. Washington Street at the time was an east-west colonial highway that served as a major link between the city of Boston and the outlying farm areas. Washington Street has served several purposes since its construction, first as a farming trade route, next as a stagecoach route, then as the site for the railroad tracks, and most recently as a frontage road for the Massachusetts Turnpike.



### 1850s

The map at the left, dated 1855, shows that by this period of time, the development of roads in the City of Newton reinforced the development of various village centers instead of one main downtown area. Roads developed in clusters, and homes were also built in clusters, creating nodes of developed areas within the City of Newton.



Historic Newtonville streetcar.

### 1859 - 1890s

Newtonville's transportation network changed yet again in conjunction with the establishment of the village's first high school in 1859. Walnut Street became a major north-south axis for Newtonville at this time to support the high school's transit needs. The high school, along with the small shops lining the street, and the rail depot at Hull's Crossing, created a centralized main street out of Walnut. The years between 1860 and 1875 showed a dramatic period of growth for Newtonville. Although the southern half of Newtonville developed at a faster pace, all of Newtonville remained relatively homogenous, and most of its neighborhoods retained a predominantly middle class character.

By the 1890s, a method of quicker and more convenient transportation was needed for the large volume of students and commuters coming to or through Newtonville. Thus the electric street railway was created to link communities together while providing a solution that was affordable and accessible to people of all income levels.

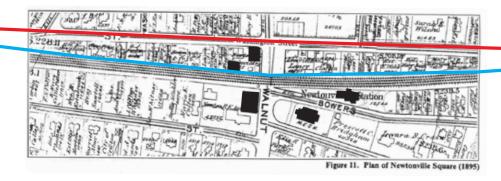


Map of regional streetcars in the City of Newton and surrounding areas, 1908.

### 1890 - 1910s

Trolley tracks were built all over Newton, linking Newton's villages into one large trolley network. Newtonville served as an important intersection of two major lines: the Washington Street line ran east-west to connect West Newton's railway station with the American Waltham Watch Company in Waltham and the Walnut Street line ran north-south.

Newtonville became the focal point of the streetcar network, and the Newtonville townspeople developed a strong pride in their transportation systems. However, while the streetcar network served to connect all of Newton's villages, helping to create positive interrelationships, there was nevertheless no central downtown area. Newtonville was a transportation crossroads without a main focus.



Newtonville in 1895 before the elimination of the city block between Washington Street (red) and the railroad (blue).

### Early 1900s

The creation of the streetcar network led to a growing population with a need for more extensive city services and commercial areas. Traffic increased greatly at major intersections, and to avoid the situation, it was decided that the four railway tracks at grade would be lowered below grade. The current tracks are still below grade, although there are now two instead of four. It was also decided at this time that Washington Street would be straightened and widened to improve the flow of traffic. Washington Street was lined on both sides with commercial building, shops, and residences, but all of these on the south side between Washington Street and the railway were demolished at the time of the street's expansion. Newtonville Square's previously intimate Victorian character was destroyed as a result.



Present-day Newtonville and Massachusetts Turnpike.

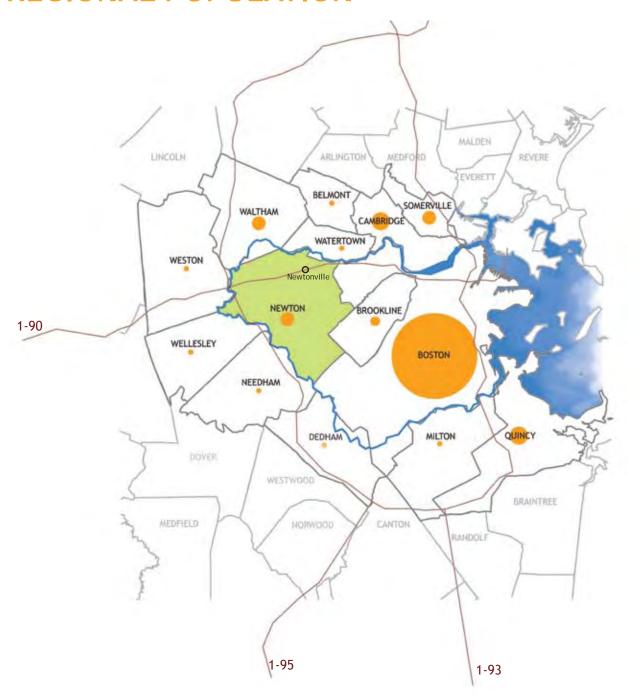
### 1910 - Present

In 1921 Newton's first official zoning plan called for the creation of 14 new east-west auto routes and 12 new north-south auto routes. The plan was spearheaded by and favored auto drivers as opposed to streetcar riders, and streetcars gradually lost favor as the new roads were constructed. The preference for personal motor vehicles culminated with the construction of the Massachusetts Turnpike in 1962. North and South Newtonville had previously been divided by the expansion of Washington Street and the consequent demolition of buildings on its south side, but the Massachusetts Turnpike created an even greater divide between the two areas. At this time, two of the railway's four tracks were eliminated and streets, homes, and shops on the south side of the tracks were also destroyed to make room for the Turnpike.

The source of Newtonville's sense of identity and pride was once its rail depots, railways, and streetcars. At present, however, Newtonville lacks a defining element, and much of its historic center has been significantly altered or destroyed due to expansion for vehicular traffic. Now the village is in need of a new identity, more green space, and restoration and upkeep of its historic areas in order to restore Newtonville's character.

# Regional Analysis

# **REGIONAL POPULATION**



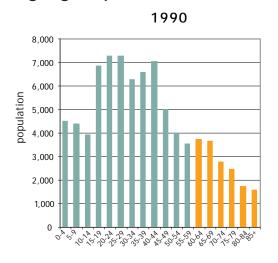
The Boston Metropolitan Region is home to 4.3 million residents. The area continues to grow and is projected to increase in population by 11 percent between 2005 and 2030.

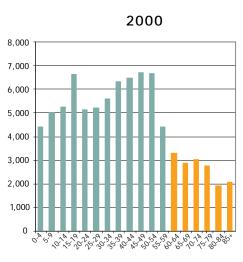
83,500 people live in Newton. Like the metropolitan region, the city is projected to experience population growth in the future. However, due to its relatively built-out status, its expansion will be more moderate than the growth in the region overall.

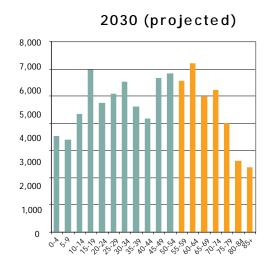
# 2008 Intern Charrette: Newtonville, Massachusetts

# **NEWTON DEMOGRAPHICS**

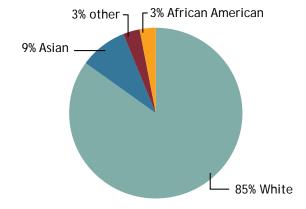
## **Aging Population**







### Race



4.3% of the population is of Hispanic origin.

## Median Family Income

City of Newton: \$121,500

Boston Metro Area: \$80,000

Following national trends, the number of older residents in the City of Newton has risen in recent years and is projected to increase sharply in the future. This will present challenges to the city in terms of ensuring that appropriate housing and services are available for these residents.

The population of the City is predominantly white, with smaller percentages of individuals of other races and national origins. Also, the median family income in the City of Newton is significantly higher than the median family income in the Boston Metropolitan Area.

These city-wide trends are evident in the area immediately around Newtonville Station as well.

# **NEWTON HOUSING MARKET**

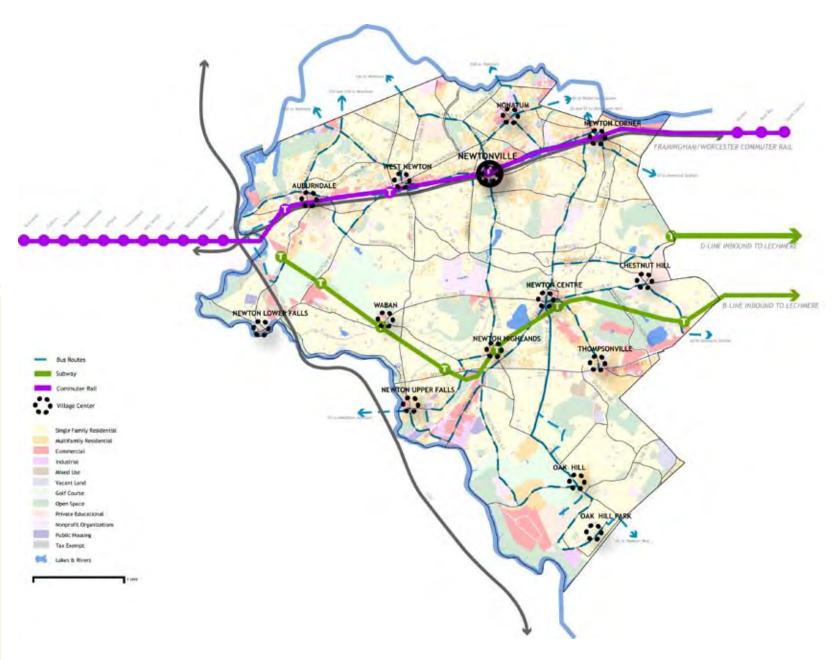
Currently, there are 31,800 housing units located in the City of Newton. Under their scenario anticipating the highest level of growth, the Newton City Comprehensive Plan projects 2,210 new housing units will be built in the city by 2030. They envision these units as being predominantly multifamily and concentrated along the Mass Turnpike and the Interstate 95 corridors.

3,500 units (11 percent of the City of Newton's housing stock) are located within approximately 1/4 mile of the Newtonville commuter rail station. Under the "high growth scenario" from the Comprehensive Plan discussed above, denser development along the Mass Turnpike would slightly increase the share of the City of Newton's housing located within a short distance of the train station. This would lead to approximately 300 units of housing being absorbed in this area by the year 2030. This estimate guides the level of build-out explored for the development plan, which operates under the assumption that Newtonville, as one of many villages in the City of Newton, would absorb a relatively proportional share of growth, rather than serving as a main growth area.

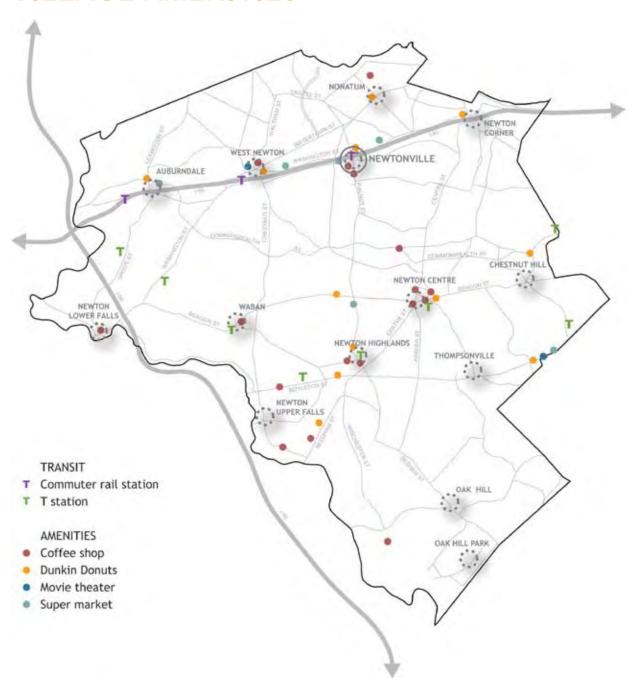
The median value of owner-occupied housing units in the City of Newton is \$690,000, and the median monthly rent (with all utilities and fees included) is \$1,400. Based on projected rents from comparable units as well as current construction costs and financing structure, development of rental housing in the Newtonville area would not be particularly lucrative. Opportunities for subsidization of affordable housing development could be one way to make this development more feasible. Providing affordable housing in proximity to Newtonville's transit and retail amenities would also make the City of Newton a more viable housing alternative for a larger segment of the population.



# **NEWTON'S VILLAGE STRUCTURE**



# **VILLAGE AMENITIES**



As discussed earlier, the City of Newton has 13 historic village centers. Much of the retail located in the city is located around these centers. Additionally, the city has significant amounts of green space scattered throughout the city. The predominant land use, however, is low-density residential development.

Each of these villages has been developed to differing degrees and offers a range of amenities to Newton residents. Newtonville is one of the more developed village centers and offers several amenities, including transit access, multiple supermarkets, and several coffee shops. Particularly because of the grocery stores, Newtonville is already a destination for many residents of the area. This could be expanded through a diversification of the retail in the area.